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(56) Documents Cited
GB 2052942 A EP 0249958 A2 US 4873787 A
US 4557069 A US 4501088 A

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(54) Insect trap

(57) An insect trap has a circular cover member (10 figs. 1 + 3) with an inlet 12 for attracting insects, the inlet 12 also having a formation 23/18 to prevent the return of insects through the inlet 12; and a bag 14 whose mouth is adapted to be clamped between the cover and a ring which may be a hollow beading 44 or a Hanged ring 22. The bag may be stretched over the cover member and clamped externally by the ring, lines of weakness 26/28, 50/52 providing localised expansion.



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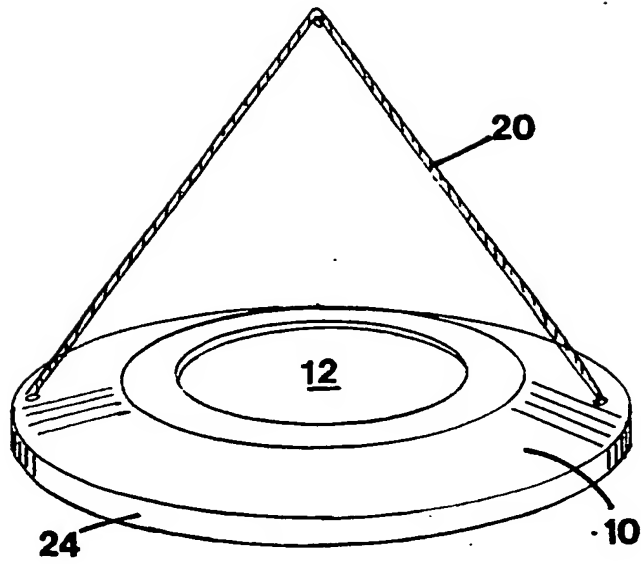
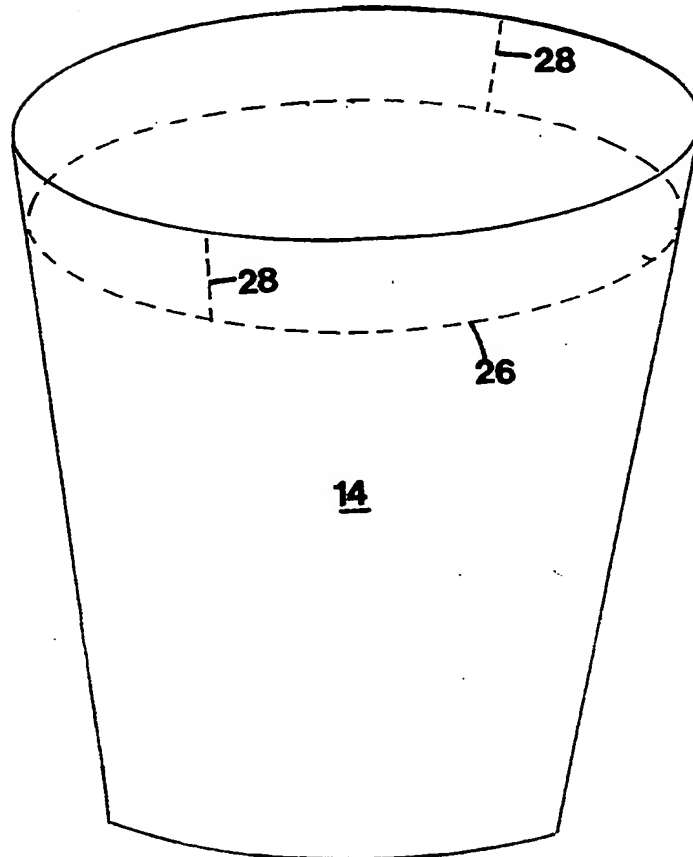
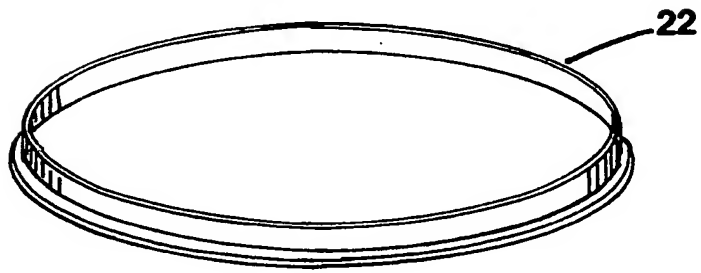


FIG 1



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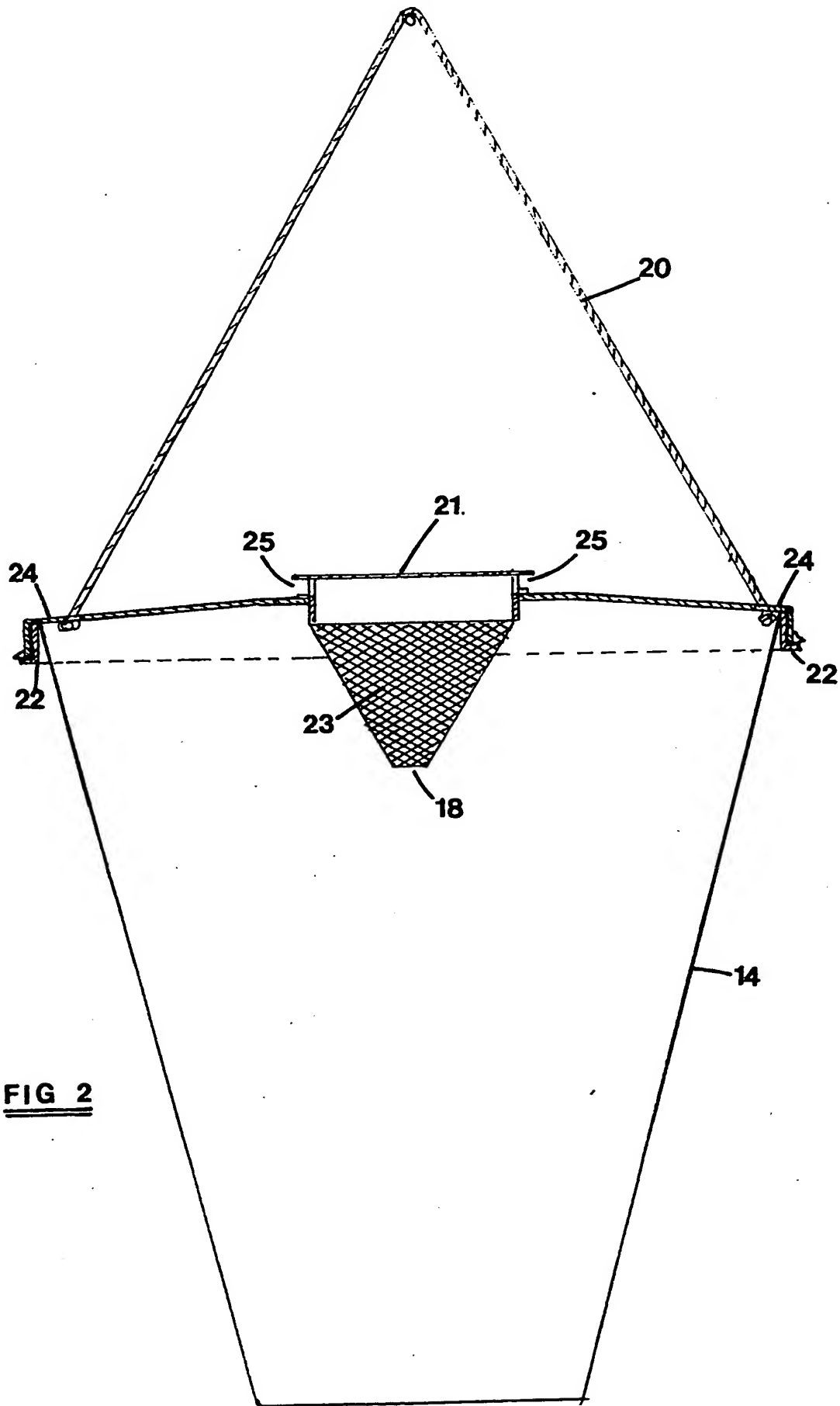


FIG 2

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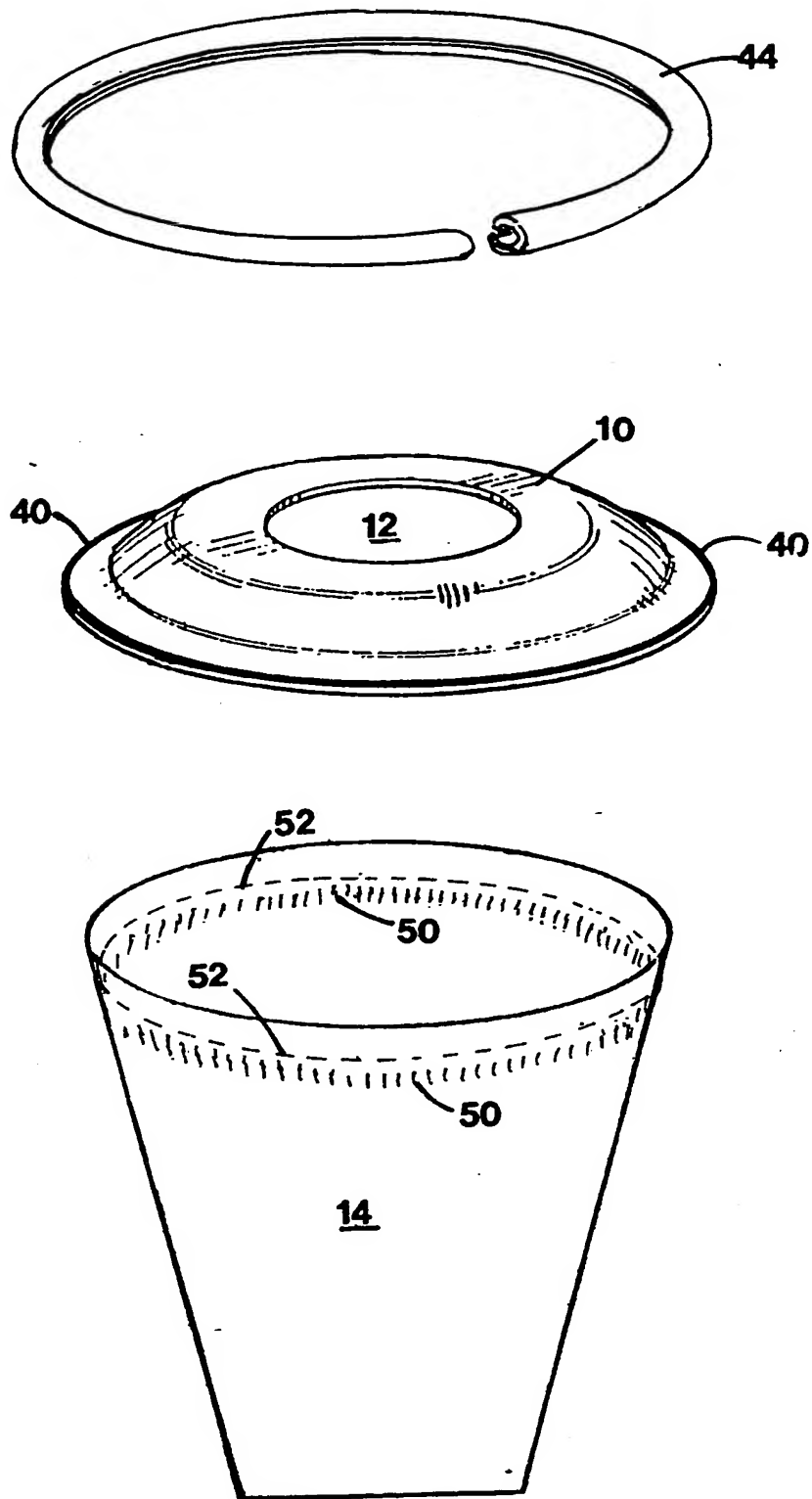
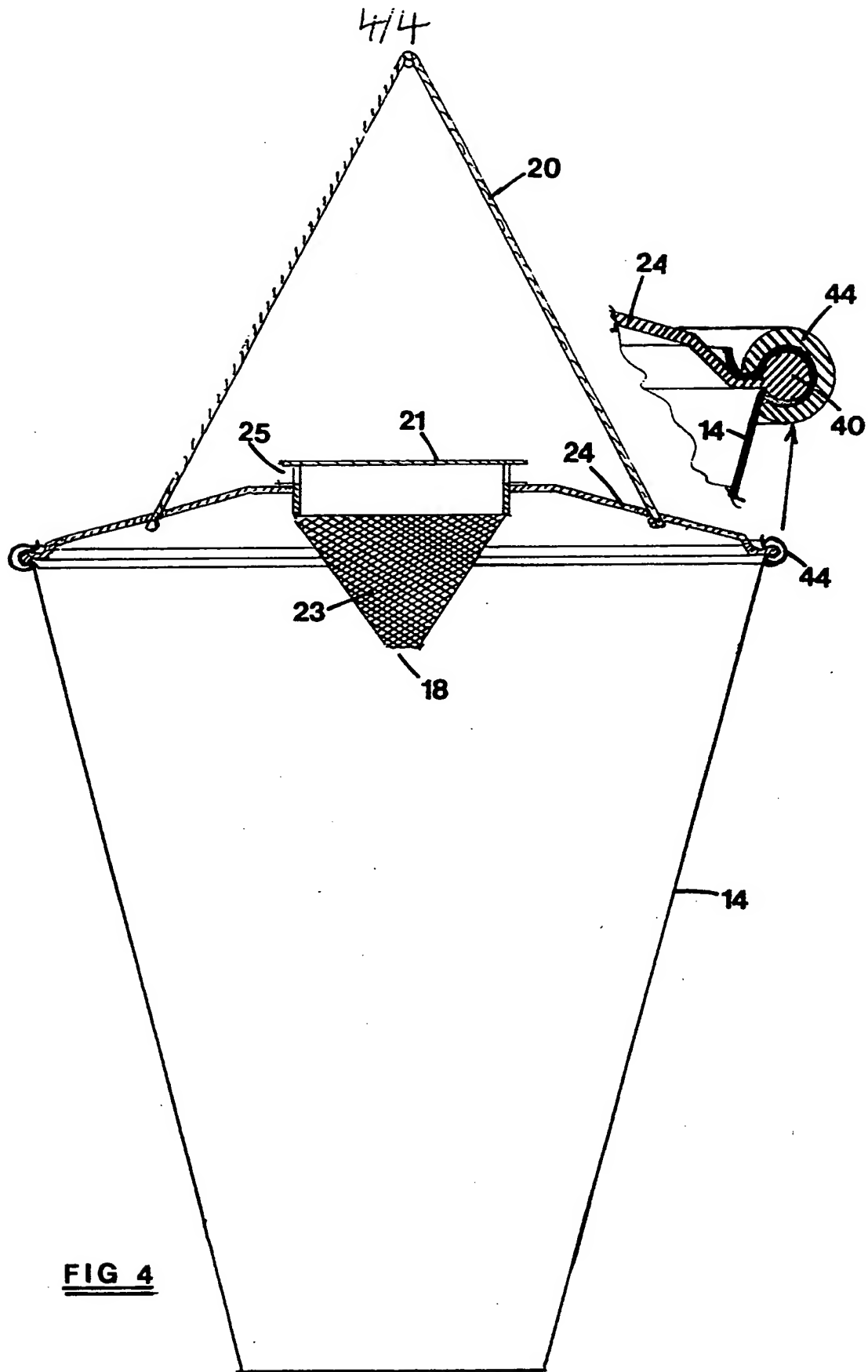


FIG 3



This invention relates to an assembly for an insect trap.

According to the invention an assembly for an insect trap includes a cover member having an inlet for attracted insects, the inlet being adapted to prevent return of trapped insects through the inlet, and a bag whose mouth is adapted to be clamped between the cover and a ring-like element.

The ring-like element may engage a peripheral flange of the cover and in a preferred form of the invention the flange depends downwardly.

In an alternative form of the invention the ring-like element is a hollow beading which is resiliently engageable with the periphery of the cover so that the bag is anchored between it and the periphery. The beading may be of C-section and resilient in both the longitudinal and cross sectional directions. The cover may have a peripheral ridge formation corresponding with the interior of the C.

The bag may include a band below the mouth, the band being peripherally expandable so that it can be forced over the periphery of the cover to conform with the shape of the periphery. This band may conveniently take the form of a series of vertical slits.

A line of weakness may be located below the mouth of the bag so that the zone above the line of weakness may be removed after location of the bag on the cover. Vertical lines of weakness may also be

provided extending from the edge of the mouth to the first mentioned line of weakness.

The line of weakness may be located a short distance above the band.

EMBODIMENT OF THE INVENTION

An embodiment of the invention will be described with reference to the accompanying drawings in which:

Figure 1 is an exploded isometric view of the main components of an assembly according to the invention;

Figure 2 is a sectional side view of the assembled integers of Figure 1 plus a canopy;

Figure 3 is an exploded isometric view of another assembly according to the invention;

and

Figure 4 is a sectional side view of the assembled integers of Figure 3 plus a canopy.

In Figures 1 and 2 an assembly includes a cover 10 which has an inlet 12 for insects attracted by bait in the bag 14, for example. A canopy 21 is provided over the inlet and a downwardly-depending conical mesh formation 23 with a hole 18 at its apex extends into the bag so that insects, once attracted into the bag, find it impossible to escape. The canopy 21 also provides protection against the weather and a cord 20 provided for suspension of the cover and the inlet is protected against weather by a canopy 21.

A flanged ring-like element 22 is provided which fits neatly behind a downwardly-depending flange 24 of the cover so that a bag 14 may be anchored between the element 22 and the flange 24.

The bag 14 includes a line of weakness 26 which extends around the bag and also includes lines of weakness 28 at right angles to the line 26. These are provided so that the bag can be tidied after location and anchorage.

It is an easy matter to disengage the element 22 and flange 24 for removal of a bag so that it can be replaced with a fresh one.

Referring now to Figures 3 and 4 where like references relate to the same or similar integers, the periphery of the cover 10 is ridged at 40, the shape of the ridge conforming to the interior of a ring-like flexible element 44 so that the bag may be anchored between the ridge and the element as shown in Figure 4.

The element 44 is substantially C-shaped in cross section with an opening which is smaller than the ridge 40 thereby necessitating a force fit as more clearly shown in the enlarged insert.

The element is preferably made from a suitable polymeric material for flexibility both longitudinally and transversally.

The bag in this case includes a band constituted by a plurality of vertical slits 50. This band is located on the ridge 40 when the bag is pulled on to the ridge and the expansion afforded by the slits ensures that the bag is located with the band corresponding with the ridge. The element 44 is then forced over the ridge and then and the mouth of the bag is then torn along the lines of weakness 52.

The periphery of the cover to facilitate reliable gripping of the bag is circular, oval or other curved or curvilinear shape and possibly even polygonal, such as square, with rounded corners.

CLAIMS:

1.

An assembly for an insect trap including a curvilinear cover member having an inlet for attracted insects, the inlet being adapted to prevent return of trapped insects through the inlet, and a bag having a mouth, the bag having a band below the mouth, the band being peripherally expandable to be forced over the periphery of the cover and to conform with the shape of the said periphery, and a ring-like element C-shaped in cross section, adapted to clamp the mouth of the bag between said element and the corner.

2.

The assembly according to claim 1 in which the bag has a line of weakness peripherally below said mouth.

3.

The assembly substantially as described with reference to the accompanying drawings.

4. An assembly for an insect trap including a cover member having an inlet for attracted insects, the inlet being adapted to prevent the return of trapped insects through the inlet, and a bag whose mouth is adapted to be clamped between the cover and a ring-like element.
5. An assembly according to claim 4 wherein the adaptation of the inlet to prevent the return of the insects is achieved by a downwardly projecting formation having a hole sized to allow an insect to pass down into the bag but making it difficult for an insect to locate and pass back through the hole, the hole being at the bottom (in use) of the formation.
6. An assembly according to claim 4 or claim 5 wherein the cover has a downwardly projecting flange into which the element can wedge itself trapping the bag.

Relevant Technical Fields	Search Examiner R D CAVILL
(i) UK Cl (Ed.M) A1M (MDB)	
(ii) Int Cl (Ed.5) A01M 1/00; /02, /10	Date of completion of Search 6 MAY 1994
Databases (see below) (i) UK Patent Office collections of GB, EP, WO and US patent specifications. (ii)	Documents considered relevant following a search in respect of Claims :- 1 TO 6

Categories of documents

X: Document indicating lack of novelty or of inventive step.	P: Document published on or after the declared priority date but before the filing date of the present application.
Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.	E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.
A: Document indicating technological background and/or state of the art.	&: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2052942 A (UNILEVER) see figure IV and page 2 lines 12-16	4,5,6
X	EP 0249958 A2 (BRIESE) see figures and note ring 46 and Hange 42	4,5,6
X	US 4873787 (SCHNEIDMILLER) see figures and column 6 lines 15-22	4,5
X	US 4557069 (CALDWELL) see figures and note ring 43 and Hange 44	4,5,6
X	US 4501088 (BOISVERT) see figures and abs	4,5
	The citations listed above are examples of a larger number of documents considered to be relevant to Claim 4	

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).